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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/971,135 | 10/04/2001 | Lance W. Russell | 10012453-1 | 1637 |

7590 01/31/2005

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[REDACTED] EXAMINER

LANE, JOHN A

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| | 2188 |

DATE MAILED: 01/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/971,135 | RUSSELL, LANCE W. |
| | Examiner | Art Unit |
| | Jack A Lane | 2188 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 22 November 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-24 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-24 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is responsive to the amendment filed 11/22/2004.

Claims 1-24 are presented for examination. Any objections or rejections made in the previous office action not specifically repeated below are withdrawn or have been overcome by applicant's response.

The Terminal Disclaimer filed 11/22/2004 is improper. An attorney or agent, not of record, is not authorized to sign a terminal disclaimer in the capacity as an attorney or agent acting in a representative capacity as provided by 37 CFR 1.34 (a). See 37 CFR 1.321(b) and/or (c)

2. The examiner requests, in response to this Office action, any documentation known to qualify as prior art under 35 U.S.C. sections 102 or 103 with respect to the invention as defined by the independent and dependent claims. That is, any prior art (including any documentation used to develop the disclosed/claimed subject matter and any products for sale) similar to the claimed invention that could reasonably be used in a 102 or 103 rejection. This request does not require applicant to perform a search. Support for this request is derived from 37 C.F.R. 1.56 and 1.105, however, it is not intended to interfere with or go beyond that required under 37 C.F.R. 1.56 or 1.105.

The request may be fulfilled by asking the attorney(s) of record handling prosecution and the inventor(s)/assignee for references qualifying as prior art. A simple statement that the query has been made and no prior art found is sufficient to fulfill the request. Otherwise, the fee and certification requirements of 37 CFR section 1.97 are waived for those documents submitted in reply to this request. This waiver extends only to those documents within the scope of this request that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this request and any information disclosures beyond the scope of this request are subject to the fee and certification requirements of 37 CFR section 1.97. **A response to this inquiry is required under 37 C.F.R. 1.105.**

In the event documentation (e.g. newly submitted/previosuly submitted on an IDS, incorporated by reference or "common knowledge" (generally found in the background section but not a publication) is determined to qualify as prior art, a discussion of relevant passages, figs. etc. with respect to the claims must be provided. The examiner is looking for specific references to 102/103 prior art that identify independent and dependent claim limitations. Since applicant is most knowledgeable of the

present invention and submitted art, his/her discussion of the reference(s) with respect to the instant claims is essential.

The examiner also requests, in response to this Office action, a showing of support for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line no(s). in the specification and/or drawing figure(s). **Additionally**, in the event documentation is incorporated by reference (i.e. publications or "common knowledge" (generally found in the background section but not a publication) and is relied upon for supporting claim limitations, such supporting documentation and limitations must be identified. This will assist the examiner in prosecuting the application. Here again this request is derived from 37 C.F.R. 1.105.

In the present disclosure, the background section identifies several prior art roundtable networks/protocols (including SNA, OSI, TCP/IP, XNS, IPX, AppleTalk, and DECnet), prior art network infrastructure services and prior patent 6,157,955. Applicant must specifically consider this prior art when complying with the above requests/1.105 requirement.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 1-24 are rejected under 35 U.S.C. § 102(e) as being anticipated by Ramaswamy et al. (Pat. No. 6,424,621).

Ramaswamy teaches the claimed "system...services" corresponding to the network system shown in figures 3 and 7. The claimed "shared memory" corresponds to shared memory 34 or 14 (see fig. 2). The claimed "plurality of network devices" corresponds to circuitry including processors 24 having cache memory 25, switching processor 44 (one of processors 24) and control processor 42 (another of processors 24).

Shared memory 34 (14) is interconnected to processors 24, switching processor 44 and control processor 42. Control processor 42 performs the function of load balancing and network management functions. The claimed local processor corresponds to one of processors 24 (fig. 2). The claimed local memory corresponds to one of cache memory 25. The

claimed “local communications protocol stack” corresponds to the stack discussed at col. 11, lines 45-65. The claimed “shared memory interface system” corresponds to circuitry including system bus 12. The claimed “maximum transfer unit (MTU)” corresponds to the circuitry including the bus and byte transfer widths. The claimed “remote nodes” could correspond to another of processors 24.

The examiner believes all dependent claim features not specifically discussed above are expressly or inherently taught by Ramaswamy. The remaining dependent claim features, while part of the invention, appear to be well known and their relevance not essential to the main invention found in the independent claim(s). Thus, a detailed discussion of the well known claim feature(s) is not warranted at this time.

In the event applicant disagrees with the characterization of certain dependent claim elements as being “expressly or inherently” taught by the reference, applicant must specify exactly what claim elements are considered “novel” or “allowable” and why they are allowable (e.g. the claim feature is not suggested/taught in the art of record).

In the Remarks filed 11/22/2004, applicant argues:

The shared memory 34, however, does not provide a physical transport medium for routing packets between the control and switching processors 42, 44. Indeed, in Ramaswamy's system, the shared memory 34 is used only to communicate the information contained in the routing table 62, the configuration table 64, and the collection table 66 between the

control processor 42 and the switching processors 44; packets are not routed through the shared memory 34

In response, the Abstract states:

A memory space is shared by the control processor and the data packet switching processors. The data packet switching processors route an incoming data packet directed to a user application program to the memory space. The pseudo-network driver retrieves the incoming data packet from the shared memory space and provides the data packet to the user application program.

As shown in figure 8, data packets go from/to switching processor 44, to/from shared memory 34 and to/from control processor 42.

5. Claims 1-24 are rejected under 35 U.S.C. § 102(e) as being anticipated by Morioka et al. (Pat. No. 6,631,447).

Morioka teaches the invention including a multi-computer system, comprising a plurality of local nodes interconnected by a shared memory, each local node comprising:

a local processor (e.g., see Figure 1).,

a local memory (e.g., see Figure 1).,

a local communications protocol stack as network protocol (e.g., see col. 8, line 31 to col. 9, line 7)-, and, a shred memory interface system operable to

provide a local shared memory network between the local nodes, and a global shared memory network between the local nodes and one or more remote nodes by capturing packets from the local communications protocol stacks and routing the captured packets over the shared memory (e.g., see Figures 15-16 and col. 20, line 21 to col. 24, line 24).

Morioka teaches one or more local nodes comprise one or more physical network adapters for connection to one or more remote nodes as part of the overall network configuration such as a NUMA network, a DASH system or a network using SCI protocol (e.g., see col. 1, line 10 to col. 4, line 3).

Morioka teaches the shared memory interface system on each local node supports multicast and broadcast transmissions over the shared memory from the local shared memory network and the global shared memory network; a broadcast ring structure and a multicast ring structure are allocated in shared memory for each of the local and global shared memory networks as cluster and inter-cluster communication protocol (e.g., see col. 27, line 55 to col. 8, line 28).

Morioka teaches the ring structure includes the capability of transmitting and receiving packet. s as part of the structural capacity (e.g., see Figures 15-16 and col. 20, line 21 to col. 24, line 24).

Morioka teaches having a read pointer and a write pointer associated with the ring structure as being part of the memory subsystems (e.g., see Figure 16).

Morioka teaches the shared memory is implemented by a global shared memory facility, a distributed shared memory facility or a logically shared memory facility as part of the overall network configuration such as a NUMA network, a DASH system or a network using SCI protocol (e.g., see col. 1, line 10 to col. 4, line 39).

The examiner believes all dependent claim features not specifically discussed above are expressly or inherently taught by Morioka . The remaining dependent claim features, while part of the invention, appear to be well known and their relevance not essential to the main invention found in the independent claim(s). Thus, a detailed discussion of the well known claim feature(s) is not warranted at this time.

In the event applicant disagrees with the characterization of certain dependent claim elements as being “expressly or inherently” taught by the reference, applicant must specify exactly what claim elements are considered “novel” or “allowable” and why they are allowable (e.g. the claim feature is not suggested/taught in the art of record).

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6. Applicant's arguments filed 11/22/2004 have been fully considered but they are not deemed to be persuasive. Please review the rejection above in section 4.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

8. A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

**Any response to this final action should be mailed to:
Box AF**

Under Secretary of Commerce for Intellectual Property and
Director of the United States Patent and Trademark Office
PO Box 1450
Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306, (for Official communications intended
for entry)

Or:

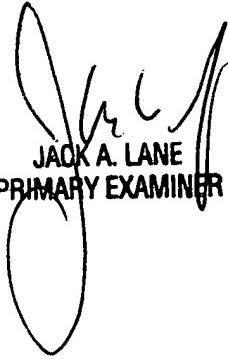
(703) 872-9306, (for Non-Official or Draft
communications, please label "Non-Official" or "DRAFT")

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack A. Lane whose telephone number is 571 272-4208. The examiner can normally be reached on Mon-Fri from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571 272-4210.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571 272-2100



JACK A. LANE
PRIMARY EXAMINER